

*Law & **Economics**
of Open Data*

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What is information?
(in economic terms)

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A PUBLIC GOOD

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A PUBLIC GOOD
(in principle)

*“He who receives an idea from me, receives instruction himself without lessening mine; **as he who lights his candle at mine, receives light without darkening me.**”*

Thomas Jefferson

Corollaries to Jefferson's candle

a) The holder of the candle decides **whether** and **how** make it available to others.

Corollaries to Jefferson's candle

b) What the receiver can actually do depends on her **absorbtive capacity** and the **complementary assets** she holds.

Corollaries to Jefferson's candle

c) Even if non-monetary, the **transaction** (passing the light) may be **costly** for both parties.

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It takes almost nothing to reproduce it → **marginal costs tend to zero**

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the marginal cost controversy

(1940's!): private and social benefits

Definition of public good

***non-rivalry** in consumption

(my consumption does not prevent yours, and we're talking about the same good)

***non-excludability**

(I cannot exclude some users, unless I am willing to bear extremely high costs for that)

CONSUMPTION

non-rivalrous

rivalrous

EXCLUDABILITY

difficult - impossible

PUBLIC GOODS
(e.g. Open Data)

**COMMON-POOL
RESOURCES**
(e.g. traditional Radio
network)

easy

CLUB GOODS
(e.g. closed WiFi network;
registration-based data)

PRIVATE GOODS
(e.g. Closed Data)

Big Data: which are the sources?

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***sensors** (measuring air quality, traffic, and many other etc.)

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- ***Govs**, whose ~~social control~~
functioning patterns are partially
grounded on Big Data

Big Data: who owns them?

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***Govs**

We are immersed in Big Data, but that doesn't look like a fluid environment!

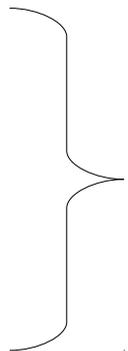
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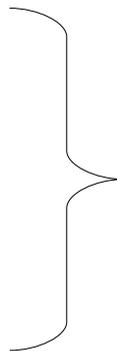
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 - Simultaneous
 - Serendipitous
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***network effects**

*OK, information and data are
sometimes public goods,
sometimes not... but...*
***what do they represent,
in the marketplace?***

A twofold perspective

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* (open) data as a **good that is exchanged or traded**

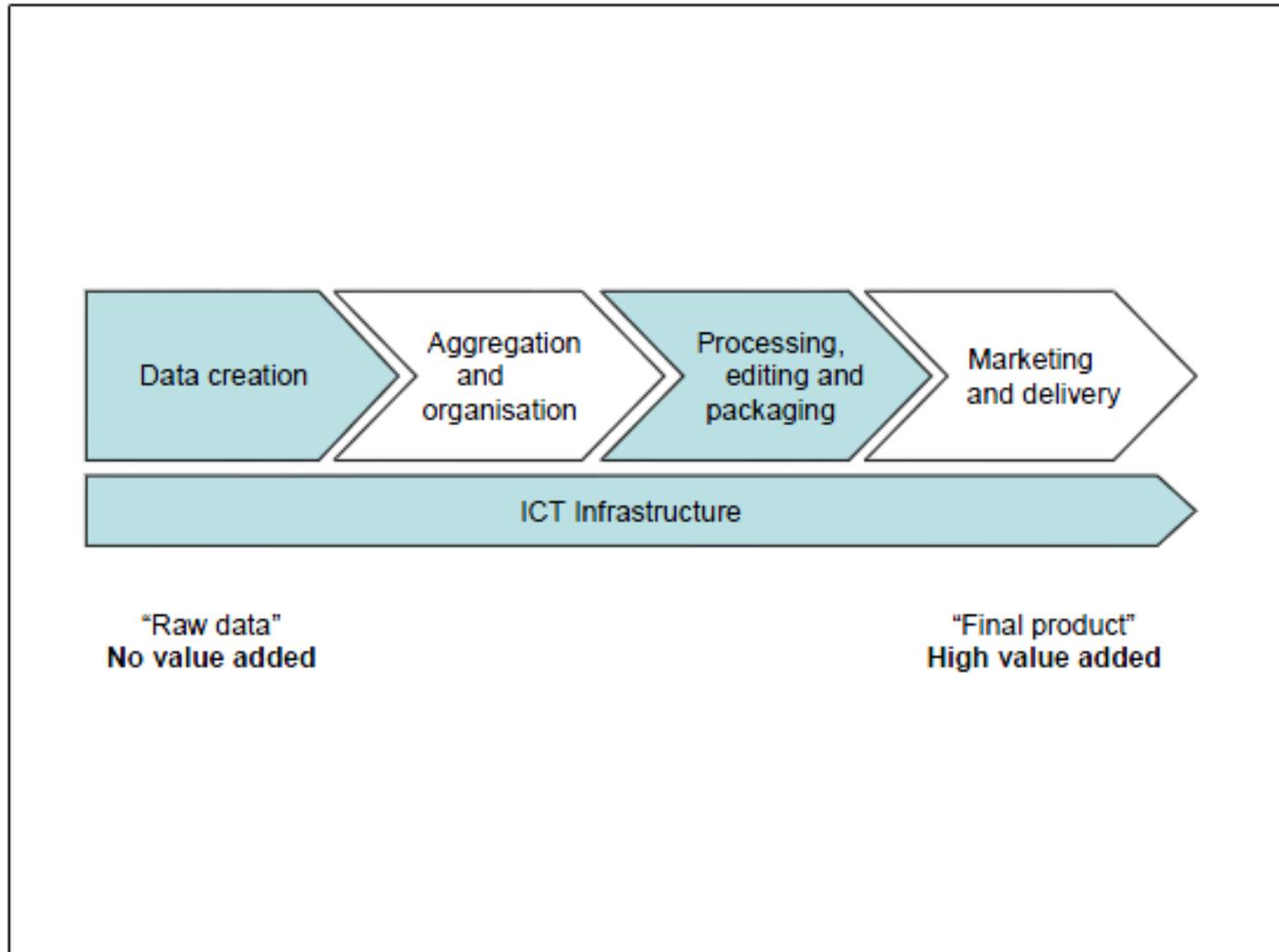
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* (open) data as a **key input** for production and decision-making

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***both things** along the value chains

Value chain



Source: OECD adapted from Pira.

Value chain | what's missing

- *non-linear patterns (iterations & loops)

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- *links between complementary chains

Business models | what

Types of Data Elaboration

- Data aggregation
- Data structuring and classification
- Data geo-referencing
- Data validation
- Data mash-up
- Visual analytics



Source: study by E. Ferro, M. Osella, *Business Models for PSI reuse*, Istituto Superiore Mario Boella, 2012 | <http://bit.ly/HmGhks>

Business models | role of the data

Role of PSI in the Value Proposition

- Final good itself
- Key ingredient of a product
- Key ingredient of a service
- Marginal ingredient of a product
- Marginal ingredient of a service



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Business models | pricing

Price Mechanisms

Premium

- À la carte
- Subscription fee
- Royalties

Freemium

- Feature limited
- Time limited
- Size limited

Free

- Advertising powered
- Cross subsidization
- Zero marginal cost



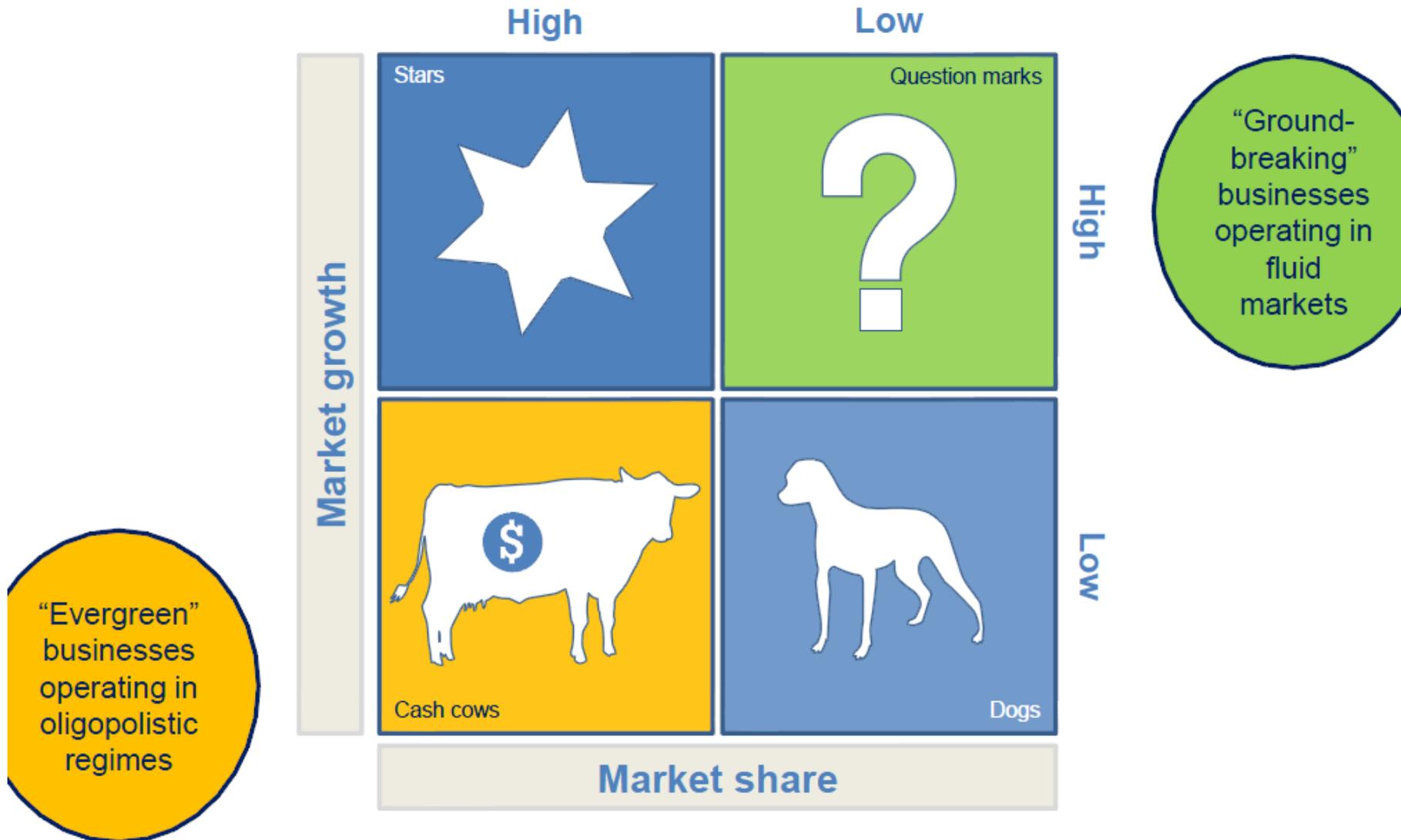
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Business models

* the possible combinations of the previous + internal sources of competitive advantage lead to **8 archetipal business models**

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Business models | growth vs share



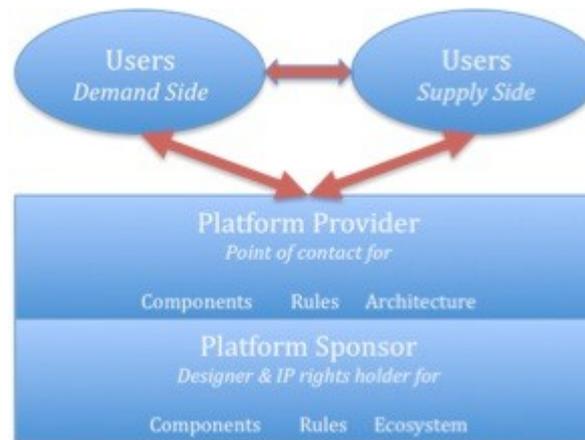
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Business models | finally

* the ones that rocked 2010

* **multi-sided** platforms: why bother?



(figure from Eisenmann, Parker, Van Alstyne, 2009)

THANKS!

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